

Abstract of the Disclosure

This invention provides an apparatus for sending and receiving serial data without losing the real time characteristics even in case of a plurality of errors. According to this invention, an overhead of the communication can be reduced, and the time for the communication can be reduced.

In a system for sending and receiving serial data between a primary station and a secondary station by sending a polling request and a refresh request through a serial transmission bus in determined time, the primary station retries a polling request and a refresh request to the secondary station which has not responded normally in the same determined time after sending the polling request and the refresh request.

Further, in a system which includes the primary station for sending the polling request and the refresh request through the serial transmission bus within the determined time and a plurality of secondary stations for responding to the primary station, the primary station predetermines a response order from the secondary stations, and sends the polling request and the refresh request to the secondary stations without designating an address. Each of the secondary stations checks the predetermined order, and responds accordingly.